

REMARKS

I. General

This paper is filed in response to the Non-Final Office Action mailed June 10, 2009. Claims 1, 3-19, 21-24, and 26-30 are currently pending in the present application. Claims 2, 20, 25, and 31 have been cancelled. The Office Action rejects claims 1 and 3-19 under 35 USC § 101 for allegedly not falling within one of the four statutory categories of invention. Applicants note with appreciation that the Office Action indicates that claims 21-24 and 26-30 are allowable.

In light of the amendments and remarks in this response, Applicants respectfully request withdrawal of all rejections and allowance of all pending claims.

II. New Claims

This paper adds new claims 32-35. Support for these claims may be found at least at paragraph [0028] of the specification. Thus, no new matter is added.

III. Claim Amendments

This paper amends claim 1 to recite “receiving a signal comprising coordinate data and normal vector data associated with each point of a starting set of points from a measuring device . . .” Support for this amendment may be found at least at paragraph [0028] of the specification. Thus, no new matter is added by this amendment.

This paper amends claim 16 to recite “generating a first estimated relationship between the plurality of points based on measured coordinate data and normal vector data received from a measuring device . . .” Support for this amendment may be found at least at paragraph [0028] of the specification. Thus, no new matter is added by this amendment.

This paper amends claim 19 to recite “removing data from a plurality of coordinate data and normal vector data associated with measured points received from a measuring device, the measured points defining . . .” Support for this amendment may

be found at least at paragraph [0028] of the specification. Thus, no new matter is added by this amendment.

IV. Claim Rejections

a) Claims 1 and 3-15 rejected under 35 USC § 101

At pages 2-3 the Office Action rejects claims 1 and 3-15 under 35 USC § 101 for allegedly not falling within one of the four statutory categories of invention. A method claims patentable subject matter under 35 USC § 101 if “(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.” *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008), citing *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). In order to advance prosecution, Applicants have amended claim 1 to recite “receiving a signal comprising coordinate data and normal vector data associated with each point of a starting set of points from a measuring device” Thus, claim 1 claims a method that is tied to a measuring device, a particular machine. Therefore, amended claim 1 is patentable under the machine branch of the machine or transformation test.

Further, amended claim 1 recites a transformation of data representing particular article into a different state or thing. Under *Bilski*, a transformation of raw data that represents a physical and tangible object is patentable. *See Id.* at 962-63. Claim 1 recites receiving a signal from a measuring device. It is inherent that the measuring device, as a physical object, will transmit a signal corresponding to a measurement of a physical article. Further, claim 1 recites “determining a first estimated relationship between the plurality of points based on the coordinate data and the normal vector data” and “determining a target point corresponding to a point having a maximum estimated error within the first estimated relationship.” Thus, claim 1 claims receiving data corresponding to a physical object, and transforming this data into an estimated relationship and a target point. Claim 1 recites a transformation of data corresponding to a physical object, and is therefore also patentable under the transformation branch of the machine or transformation test.

Applicants respectfully assert that claim 1 claims patentable subject matter under 35 USC § 101. Thus, Applicants respectfully request withdrawal of the 35 USC § 101 rejection of claim 1. Applicants further request withdrawal of the 35 USC § 101 rejections of claims 3-15, which depend from and further limit claim 1 and are thus allowable for at least the same reasons as claim 1.

b) Claims 16-18 rejected under 35 USC § 101

At page 3 the Office Action rejects claims 16-18 under 35 USC § 101 for allegedly not falling within one of the four statutory categories of invention. In order to advance prosecution, Applicants have amended claim 16 to recite “generating a first estimated relationship between the plurality of points based on measured coordinate data and normal vector data received from a measuring device” Thus, claim 16 claims a method that is tied to a measuring device, which is a particular machine. Therefore, amended claim 16 is patentable under the machine branch of the machine or transformation test.

Further, amended claim 16 recites a transformation of data representing a particular article into a different state or thing. Claim 16 recites receiving data from a measuring device. It is inherent that the measuring device, as a physical object, will measure a physical article, and data received from the measuring device will correspond to this physical article. Further, claim 16 recites “generating a first estimated relationship between the plurality of points based on measured coordinate data and normal vector data received from the measuring device.” Thus, claim 16 claims a method that receives data corresponding to a physical object, and transforms this data into an estimated relationship. Thus, claim 16 claims a transformation of data corresponding to a physical object, and is therefore also patentable under the transformation branch of the machine or transformation test.

Therefore, Applicants respectfully assert that claim 16 claims patentable subject matter under 35 USC § 101. Thus, Applicants respectfully request withdrawal of the 35 USC § 101 rejection of claim 16. Applicants further request withdrawal of the 35 USC § 101 rejections of claims 17-18, which depend from and further limit claim 16 and are thus allowable for at least the same reasons as claim 16.

c) Claim 19 rejected under 35 USC § 101

At pages 3-4 the Office Action rejects claim 19 under 35 USC § 101 for allegedly not falling within one of the four statutory categories of invention. In order to advance prosecution, Applicants have amended claim 19 to recite “removing data from a plurality of coordinate data and normal vector data associated with measured points received from a measuring device, the measured points defining” Thus, amended claim 19 claims a method that is tied to a measuring device, which is a particular machine. Therefore, amended claim 19 is patentable under the machine branch of the machine or transformation test.

Further, amended claim 19 recites a transformation of data representing a particular article into a different state or thing. Claim 19 recites receiving data from a measuring device. It is inherent that the measuring device, as a physical object, will measure a physical article, and data received from a measuring device will correspond to this physical article. Further, claim 19 recites “removing data from a plurality of coordinate data and normal vector data associated with measured points received from a measuring device, the measured points defining a starting set associated with the plurality of points based on estimated normal vector data associated with the measured points, thereby defining a revised starting set” Thus, claim 19 claims a method that receives data corresponding to a physical object, and transforms this data into a revised starting set. Claim 19 further recites “generating a first estimated relationship between the plurality of points based on the coordinate data and the normal vector data of the revised starting set” Thus, claim 19 also claims transforming the revised starting set into a first estimated relationship. Claim 19 claims a transformation of data corresponding to a physical object, and is thus also patentable under the transformation branch of the machine or transformation test.

Applicants respectfully assert that claim 19 claims patentable subject matter under 35 USC § 101. Thus, Applicants respectfully request withdrawal of the 35 USC § 101 rejection of claim 19.

d) New Claims 32-35

This amendment adds new claims 32-35. These claims depend from and further limit claim 1, and are therefore allowable for at least the same reasons as claim 1.

CONCLUSION

Applicants respectfully assert that in view of the amendments and remarks above, all pending claims are allowable and Applicants respectfully request the allowance of all claims.

Should the Examiner have any comments, questions, or suggestions of a nature necessary to expedite the prosecution of the application, or to place the case in condition for allowance, the Examiner is courteously requested to telephone the undersigned at the number listed below.

Respectfully submitted,

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